09604708 - 070704

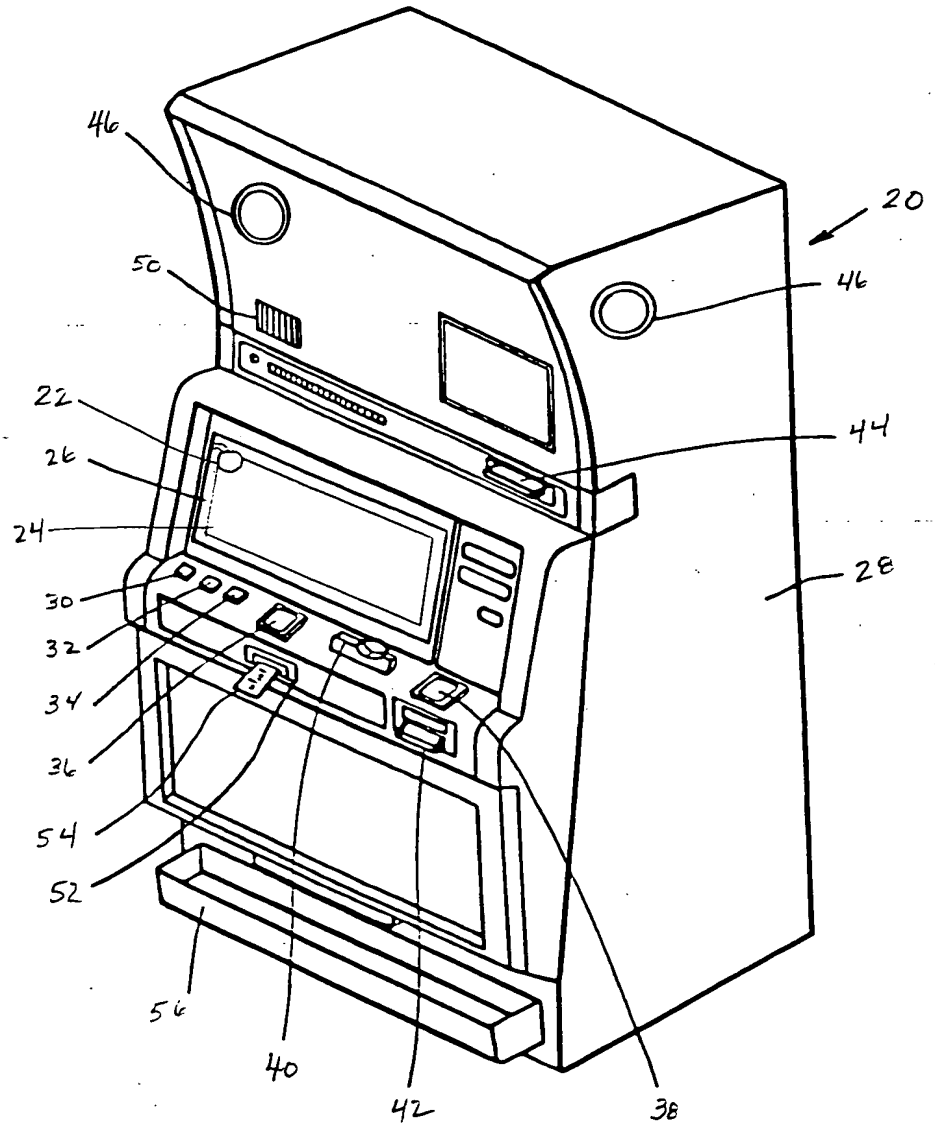


FIG. 1

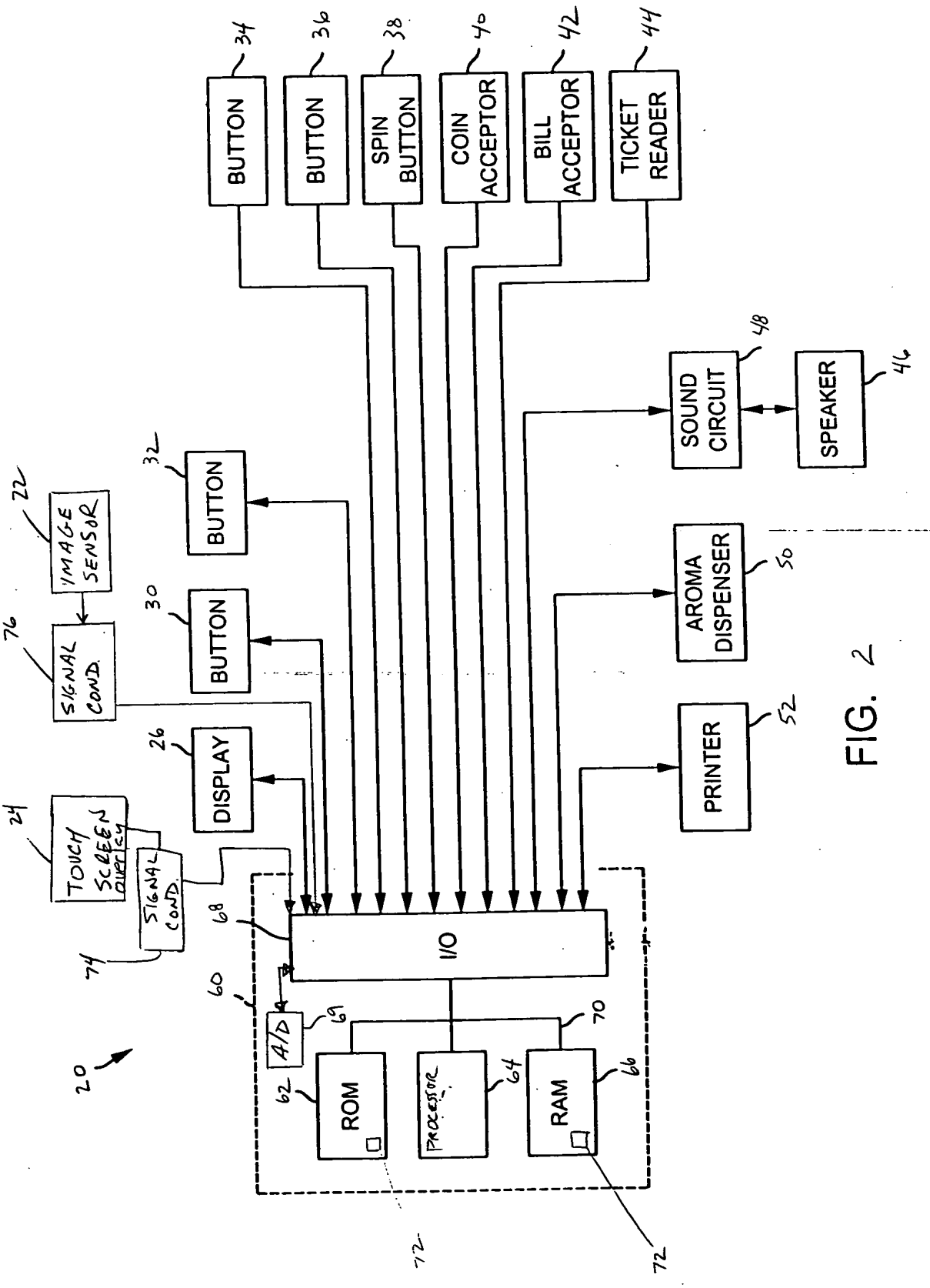
20
60
68
I/O
A/D
69
62
ROM
PROCESSOR
64
70
RAM
66
72
72
74
TOUCH SCREEN
SIGNAL COND
24
DISPLAY
26
76
SIGNAL COND
IMAGE SENSOR
22
BUTTON
32
BUTTON
30
BUTTON
34
BUTTON
36
SPIN BUTTON
38
COIN ACCEPTOR
40
BILL ACCEPTOR
42
TICKET READER
44
SOUND CIRCUIT
48
SPEAKER
46
AROMA DISPENSER
50
PRINTER
52

FIG. 2

09604804.030104

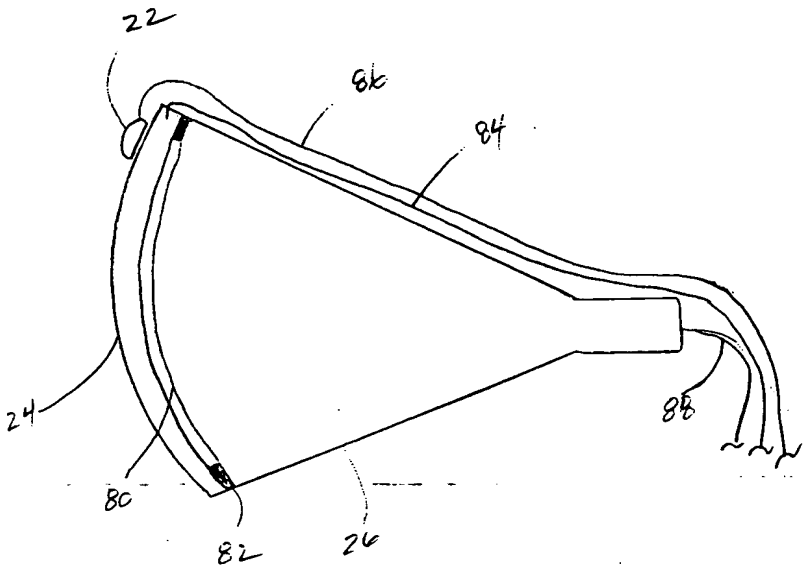


FIG. 3

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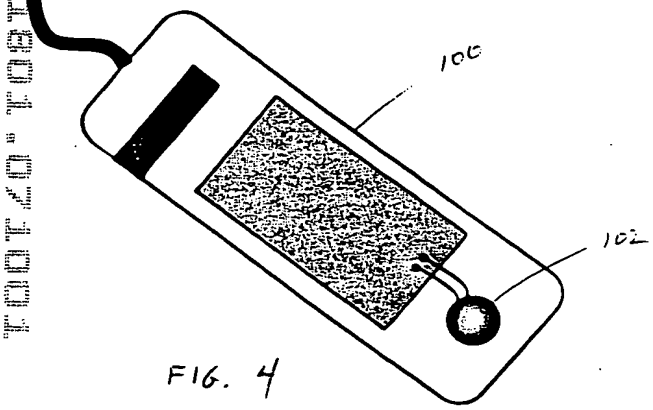


FIG. 4

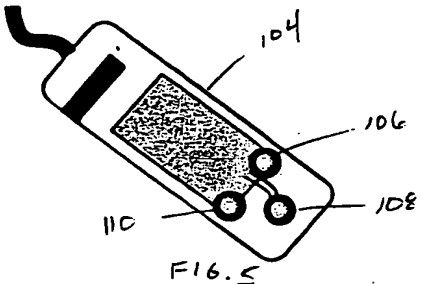


FIG. 5

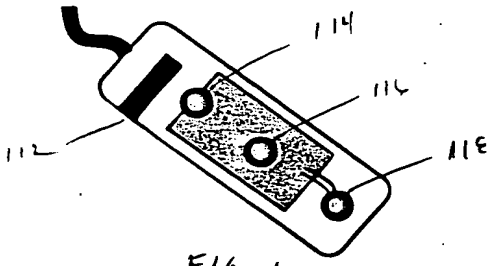


FIG. 6

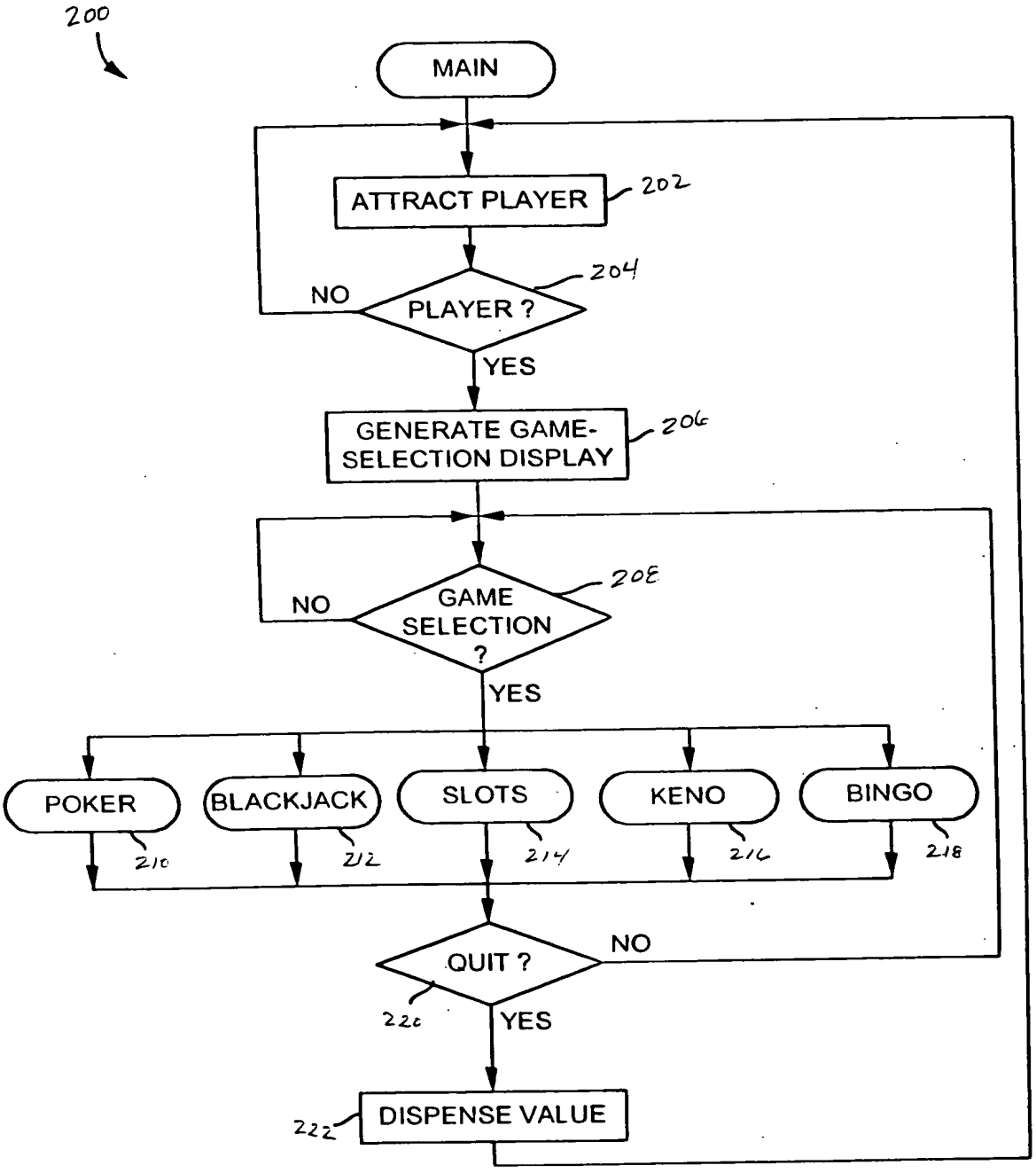
200
MAIN
ATTRACT PLAYER
202
NO
PLAYER ?
204
YES
GENERATE GAME-SELECTION DISPLAY
206
NO
GAME SELECTION ?
208
YES
POKER
210
BLACKJACK
212
SLOTS
214
KENO
216
BINGO
218
QUIT ?
220
NO
YES
DISPENSE VALUE
222

FIG. 7

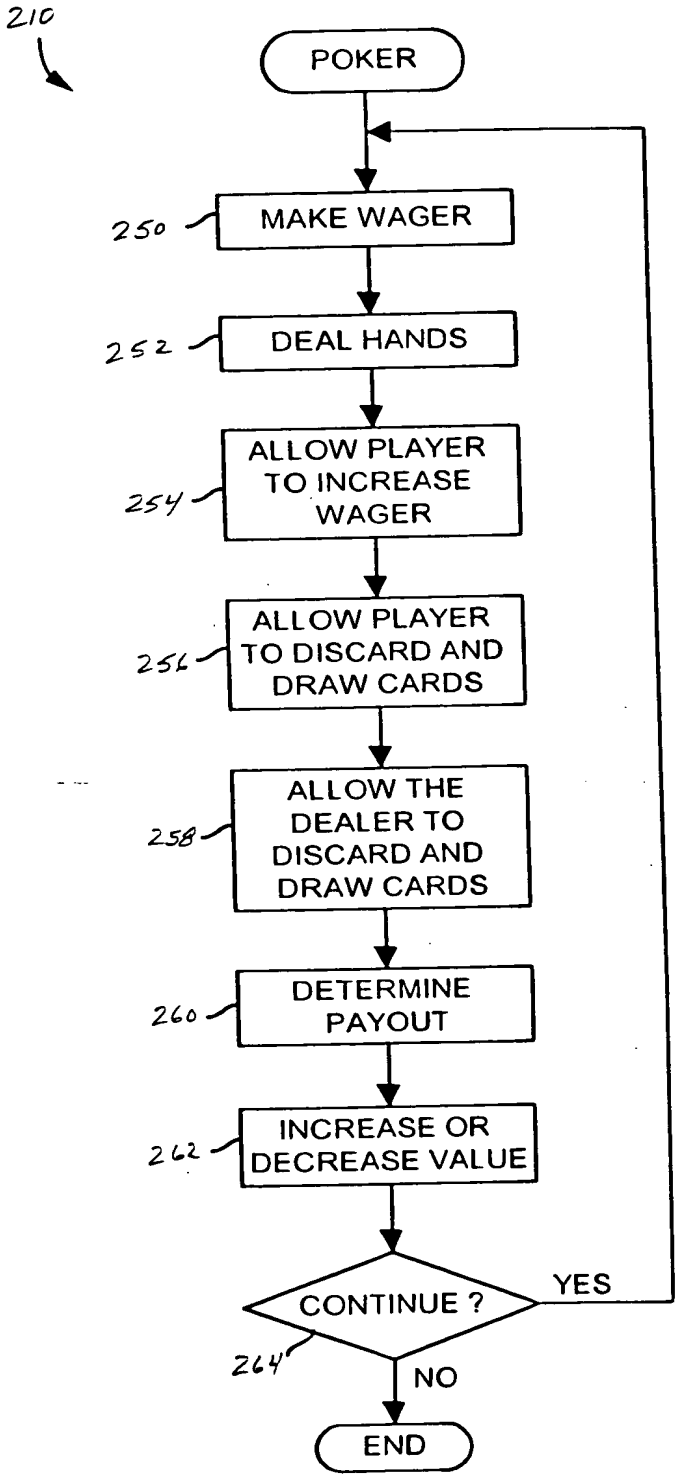


FIG. 8

09604804 - 090404

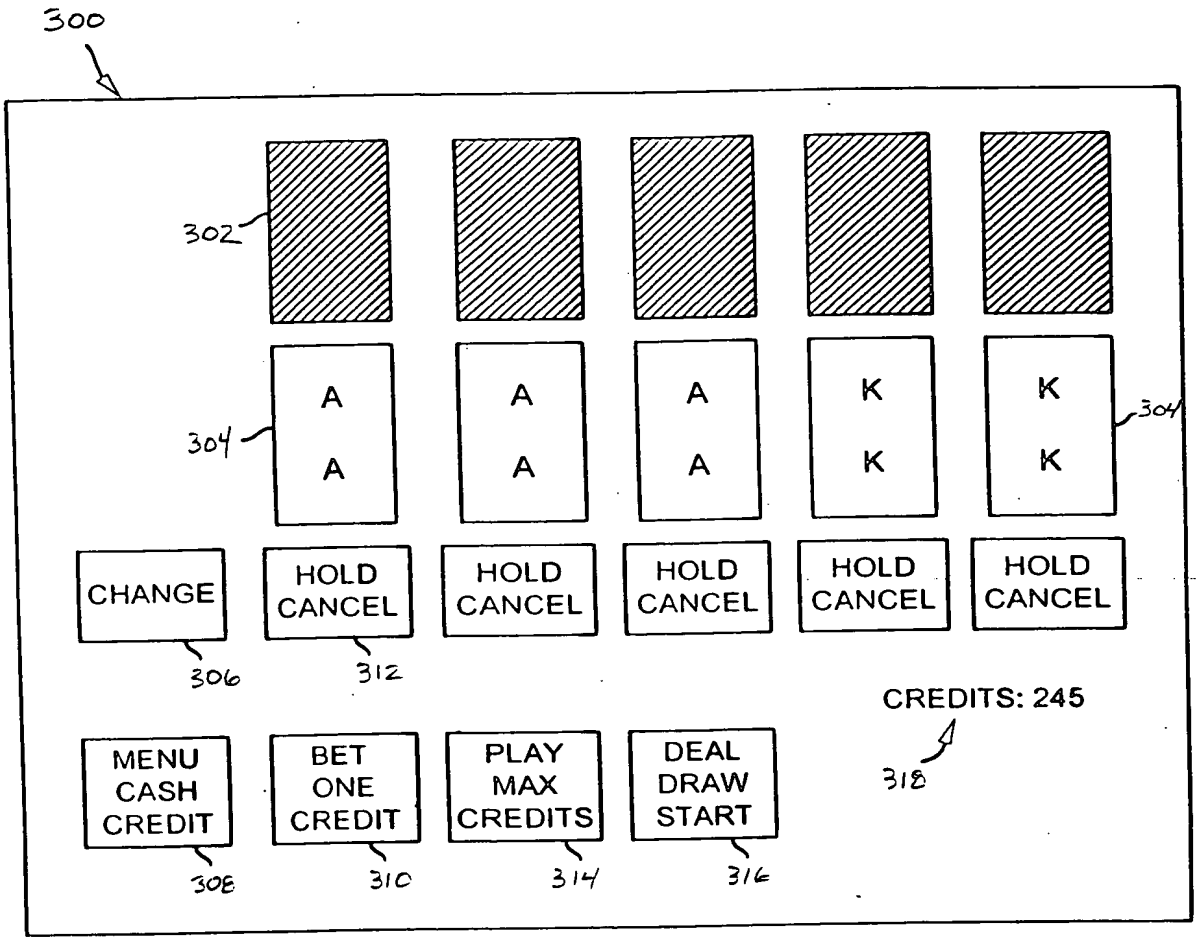
300
302
304
A
A
A
A
A
A
K
K
K
K
304
CHANGE
HOLD CANCEL
HOLD CANCEL
HOLD CANCEL
HOLD CANCEL
HOLD CANCEL
306
312
CREDITS: 245
318
MENU CASH CREDIT
BET ONE CREDIT
PLAY MAX CREDITS
DEAL DRAW START
308
310
314
316

FIG. 9

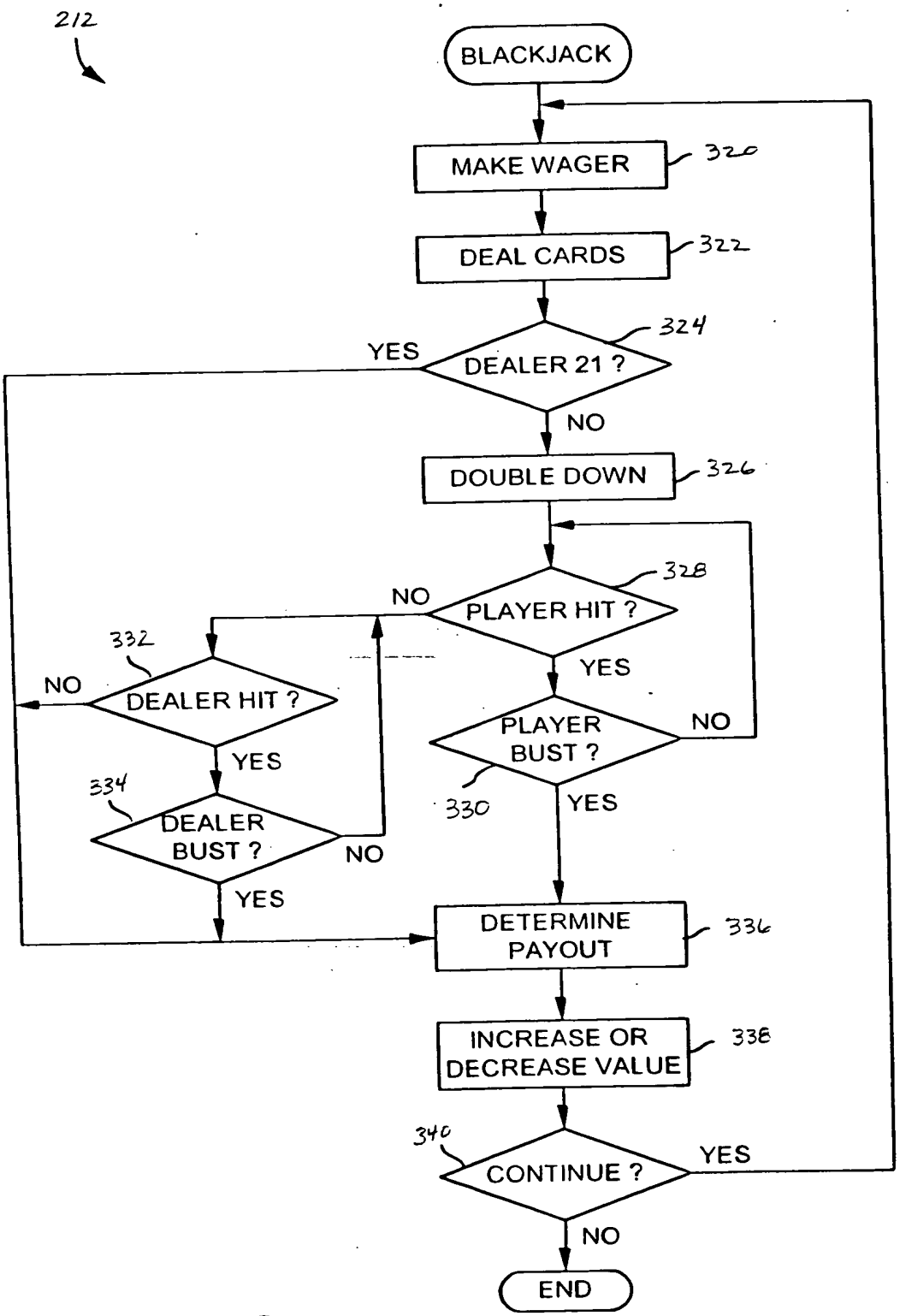
212
BLACKJACK
MAKE WAGER
320
DEAL CARDS
322
DEALER 21 ?
324
YES
NO
DOUBLE DOWN
326
PLAYER HIT ?
328
NO
YES
DEALER HIT ?
332
NO
YES
PLAYER BUST ?
NO
330
YES
DEALER BUST ?
334
NO
YES
DETERMINE PAYOUT
336
INCREASE OR DECREASE VALUE
338
CONTINUE ?
340
YES
NO
END

FIG. 10

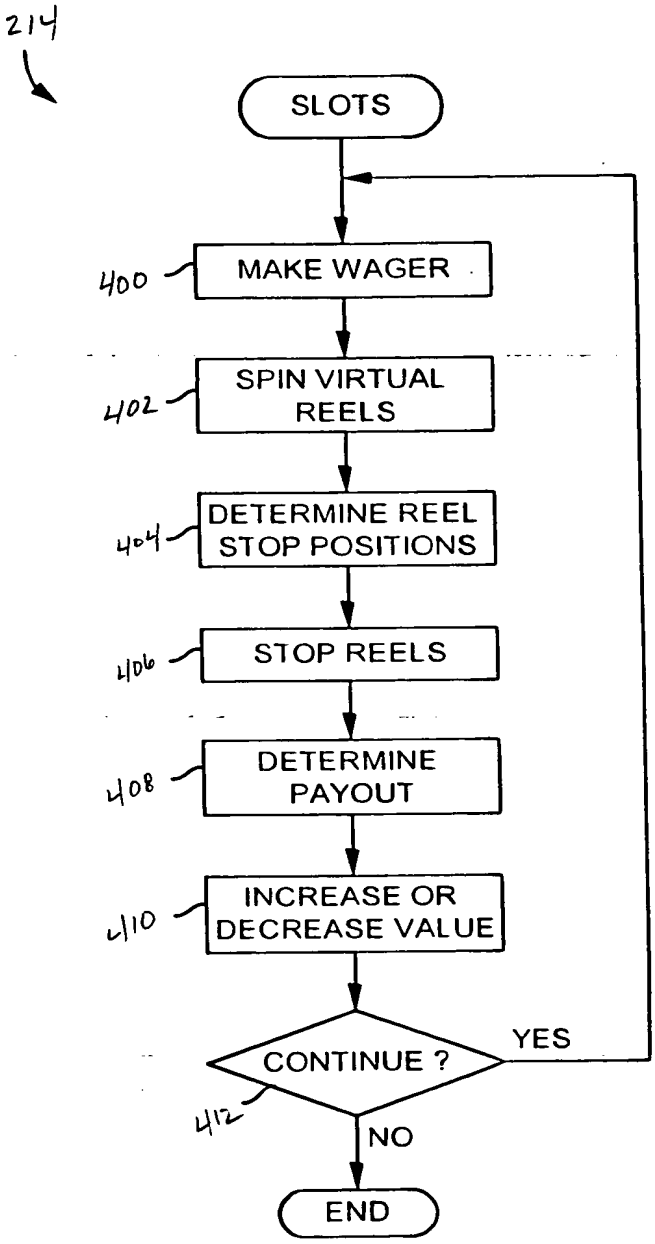
214
SLOTS
400
MAKE WAGER
402
SPIN VIRTUAL REELS
404
DETERMINE REEL STOP POSITIONS
406
STOP REELS
408
DETERMINE PAYOUT
410
INCREASE OR DECREASE VALUE
CONTINUE ?
YES
412
NO
END

FIG. 11

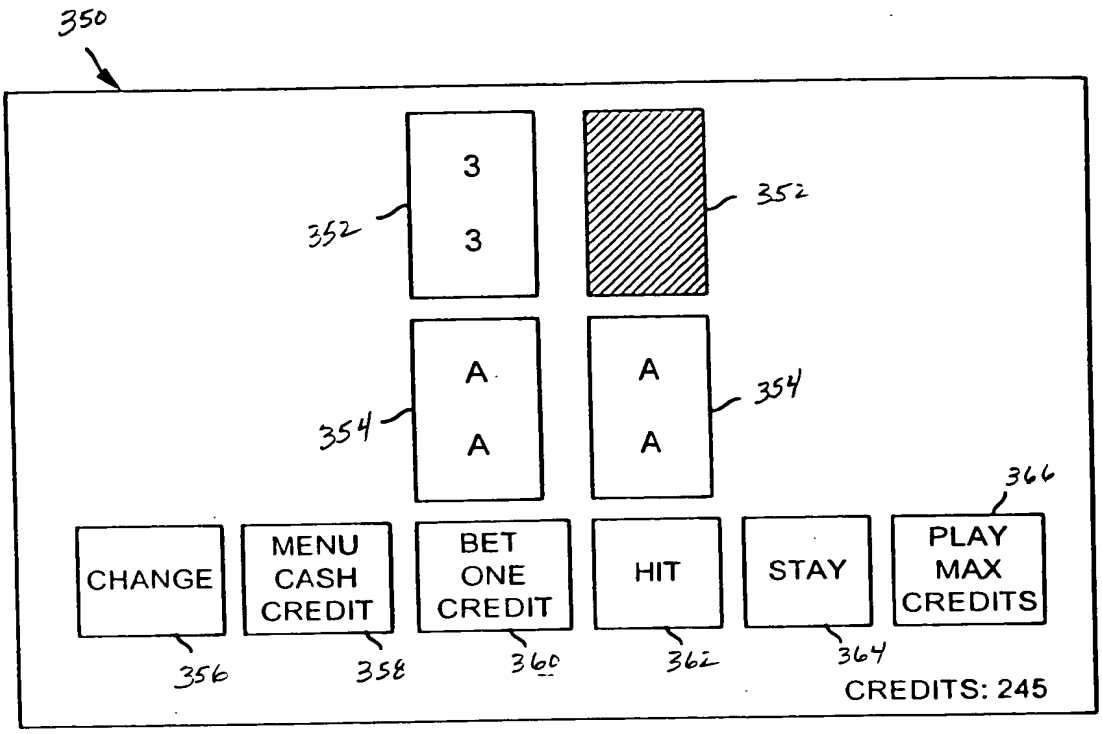
350
3
3
352
352
A
A
A
A
354
354
366
CHANGE
MENU CASH CREDIT
BET ONE CREDIT
HIT
STAY
PLAY MAX CREDITS
356
358
360
362
364
CREDITS: 245

FIG. 12

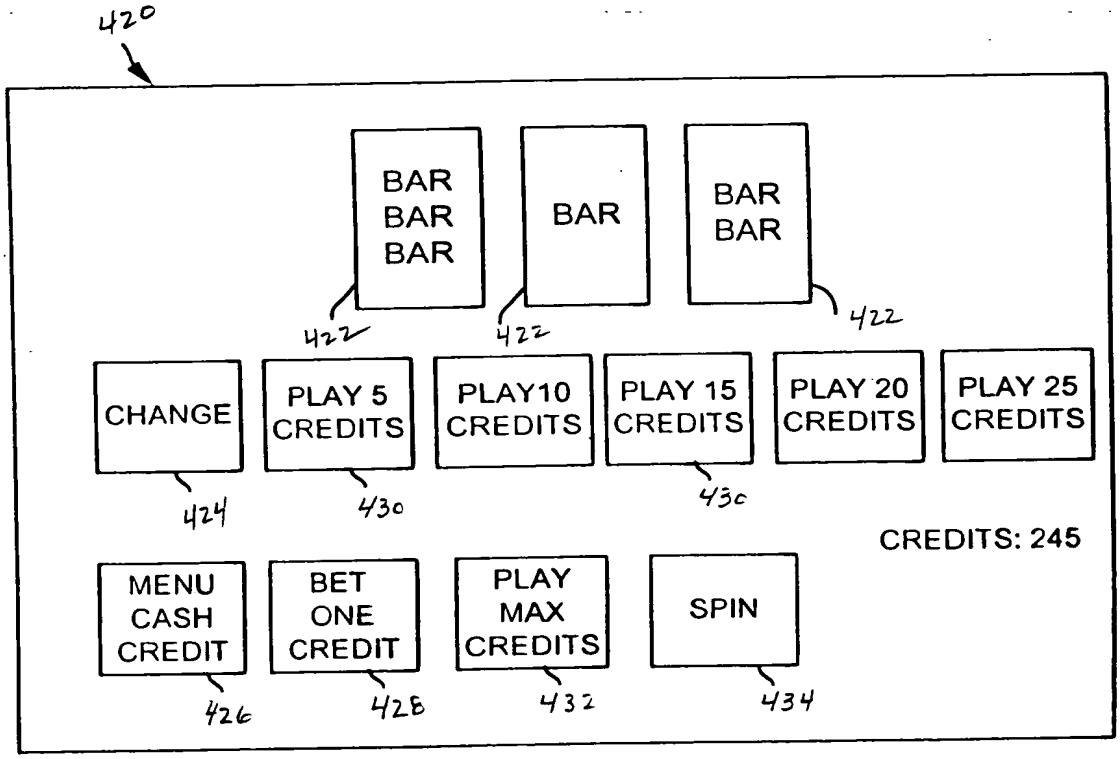
420
BAR BAR BAR
BAR
BAR BAR
422
422
422
CHANGE
PLAY 5 CREDITS
PLAY10 CREDITS
PLAY 15 CREDITS
PLAY 20 CREDITS
PLAY 25 CREDITS
424
430
430
CREDITS: 245
MENU CASH CREDIT
BET ONE CREDIT
PLAY MAX CREDITS
SPIN
426
428
432
434

FIG. 13

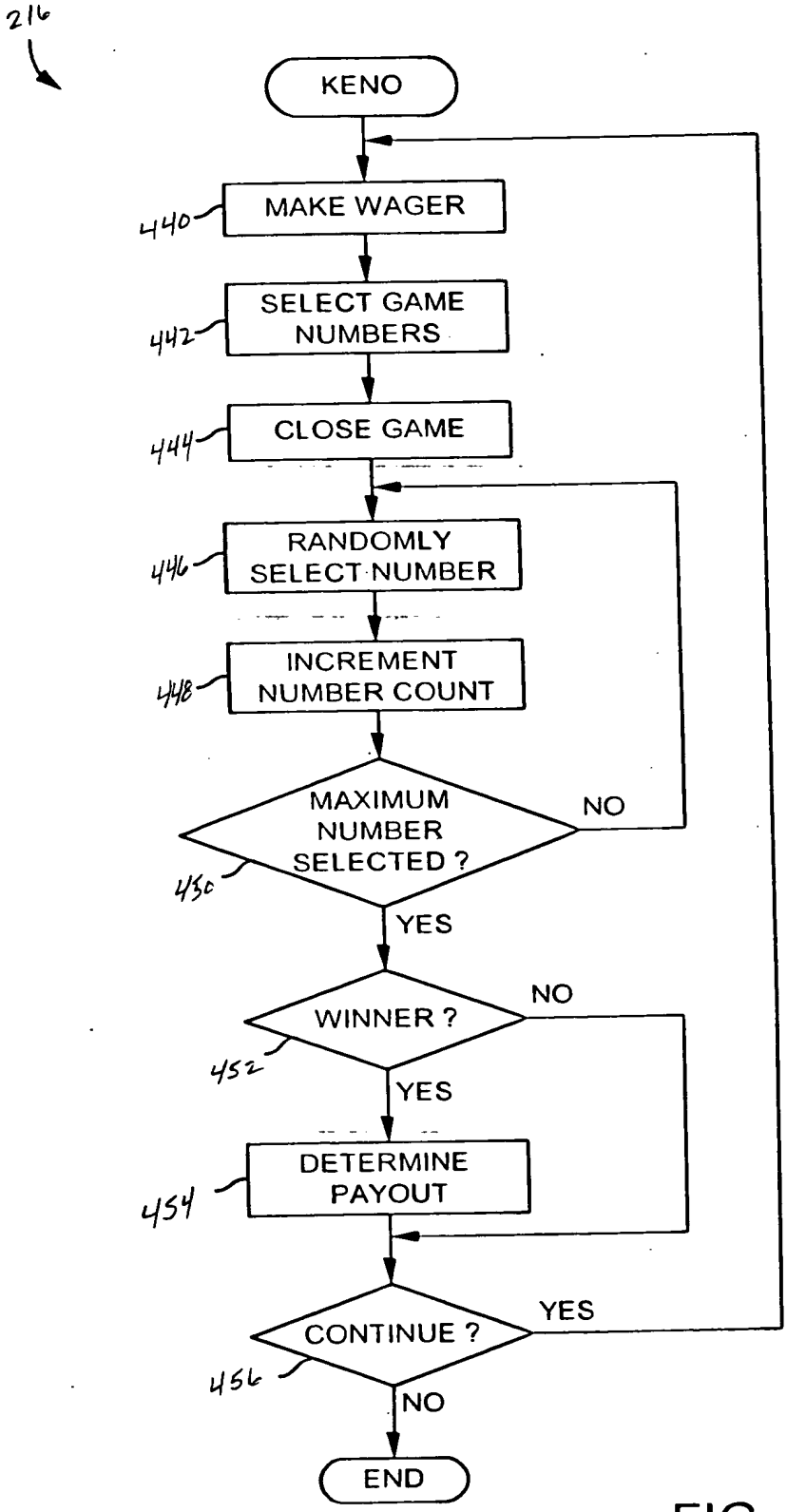
216
KENO
440
MAKE WAGER
442
SELECT GAME NUMBERS
444
CLOSE GAME
446
RANDOMLY SELECT NUMBER
448
INCREMENT NUMBER COUNT
450
MAXIMUM NUMBER SELECTED ?
NO
YES
452
WINNER ?
NO
YES
454
DETERMINE PAYOUT
456
CONTINUE ?
YES
NO
END

FIG. 14

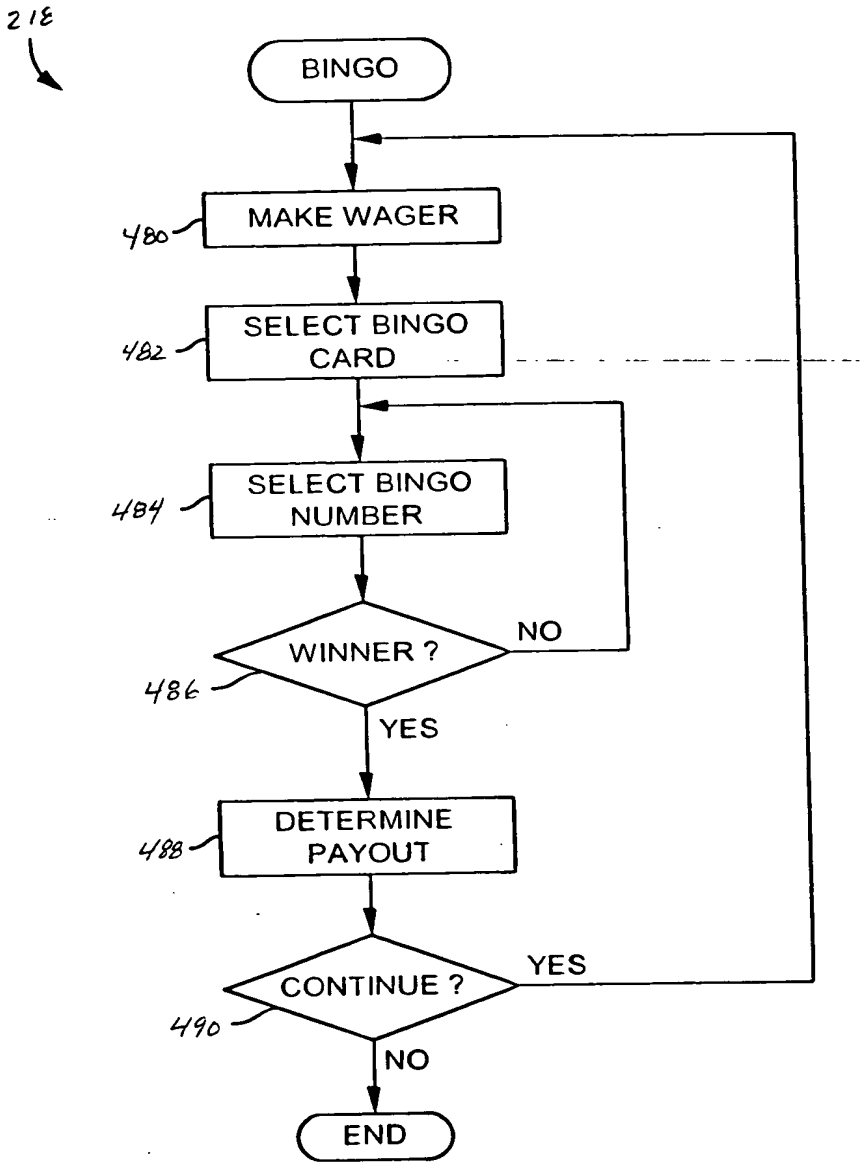
218
BINGO
480
MAKE WAGER
482
SELECT BINGO CARD
484
SELECT BINGO NUMBER
WINNER ?
NO
486
YES
488
DETERMINE PAYOUT
CONTINUE ?
YES
490
NO
END

FIG. 15

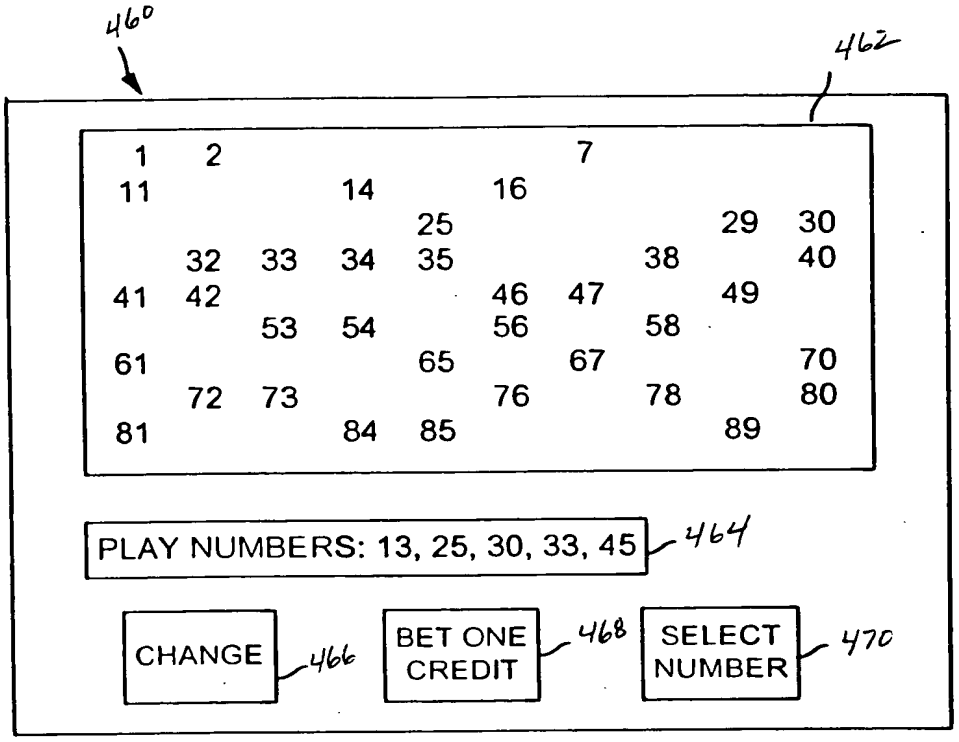
460
462
1 2 7
11 14 16
25 29 30
32 33 34 35 38 40
41 42 46 47 49
53 54 56 58
61 65 67 70
72 73 76 78 80
81 84 85 89
PLAY NUMBERS: 13, 25, 30, 33, 45
464
CHANGE
466
BET ONE CREDIT
468
SELECT NUMBER
470

FIG. 16

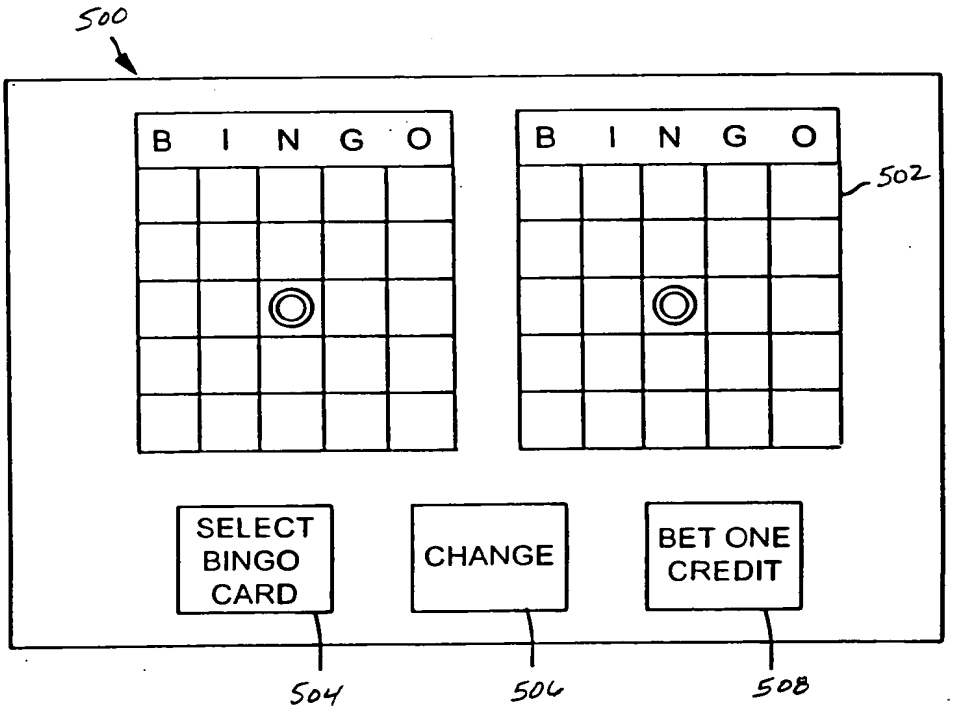
500
B I N G O
B I N G O
502
SELECT BINGO CARD
CHANGE
BET ONE CREDIT
504
506
508

FIG. 17

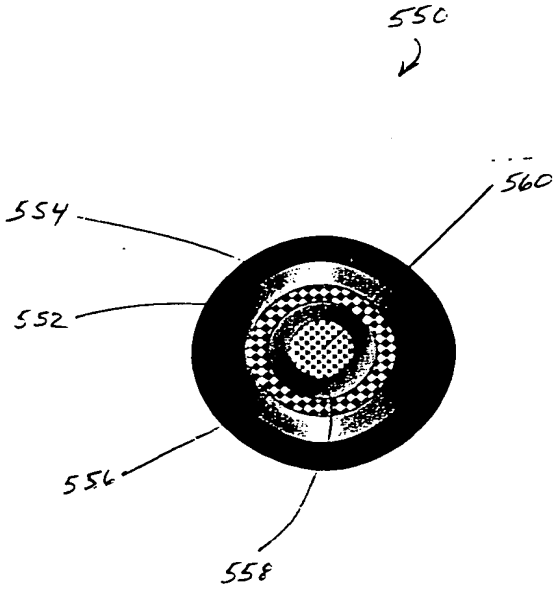


FIG. 18

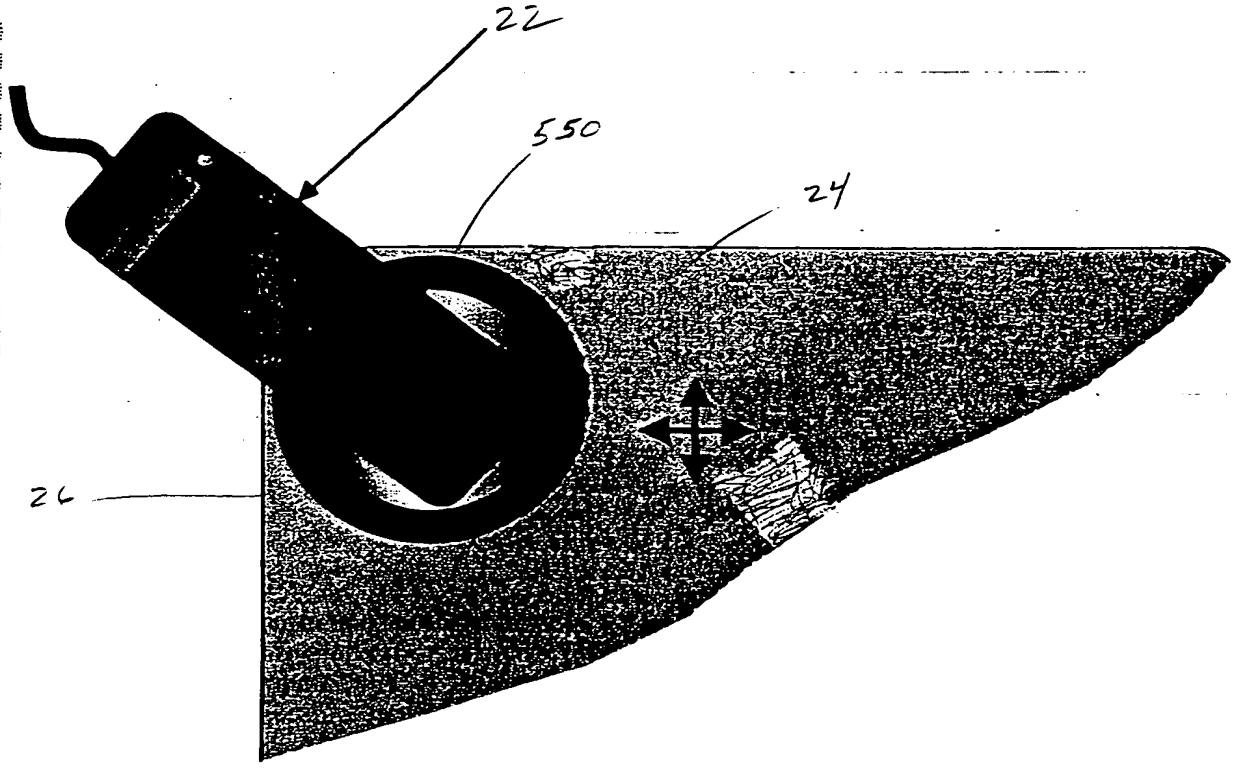


FIG. 19

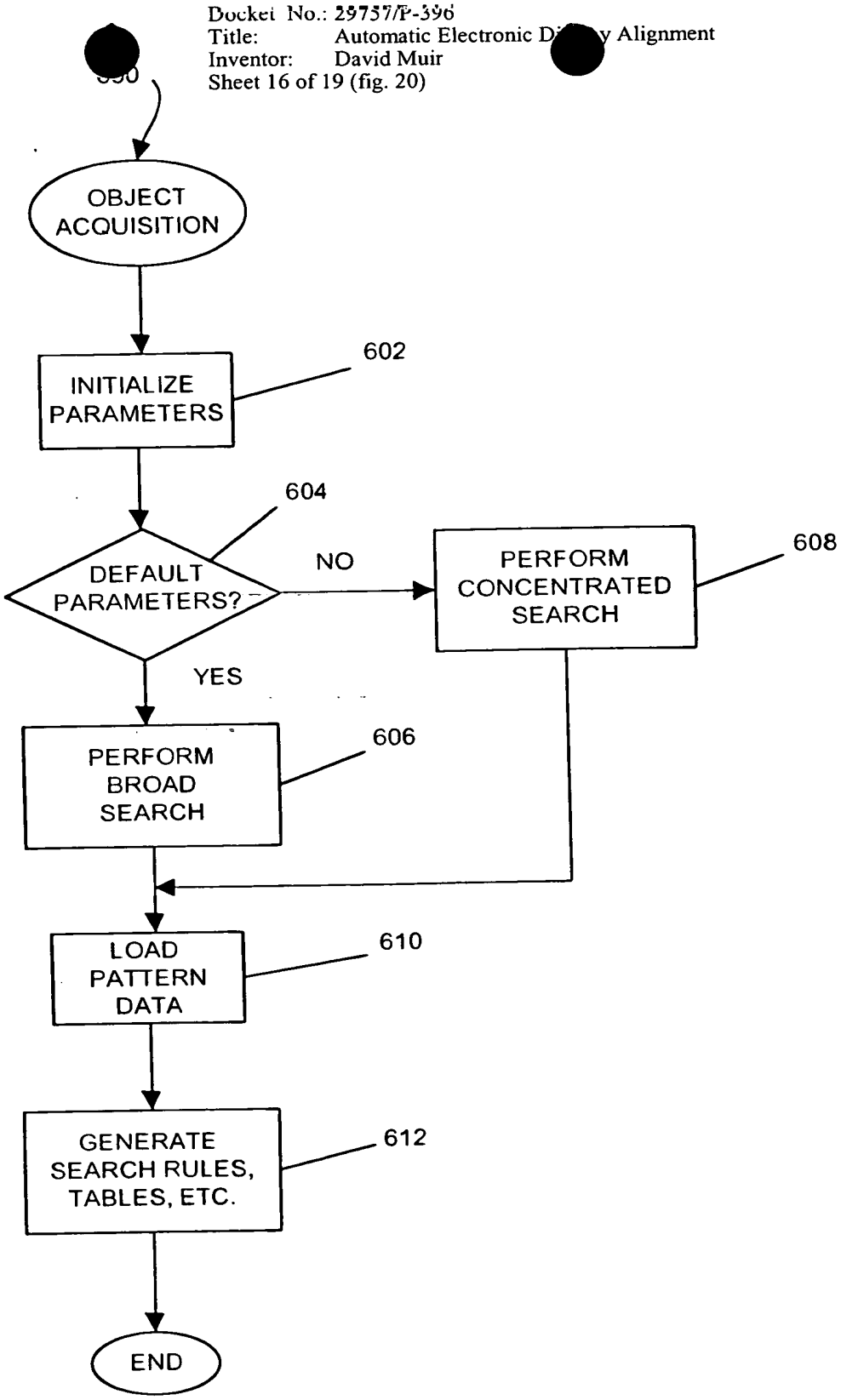
OBJECT ACQUISITION
INITIALIZE PARAMETERS
602
DEFAULT PARAMETERS?
604
NO
PERFORM CONCENTRATED SEARCH
608
YES
PERFORM BROAD SEARCH
606
LOAD PATTERN DATA
610
GENERATE SEARCH RULES, TABLES, ETC.
612
END

FIG. 20

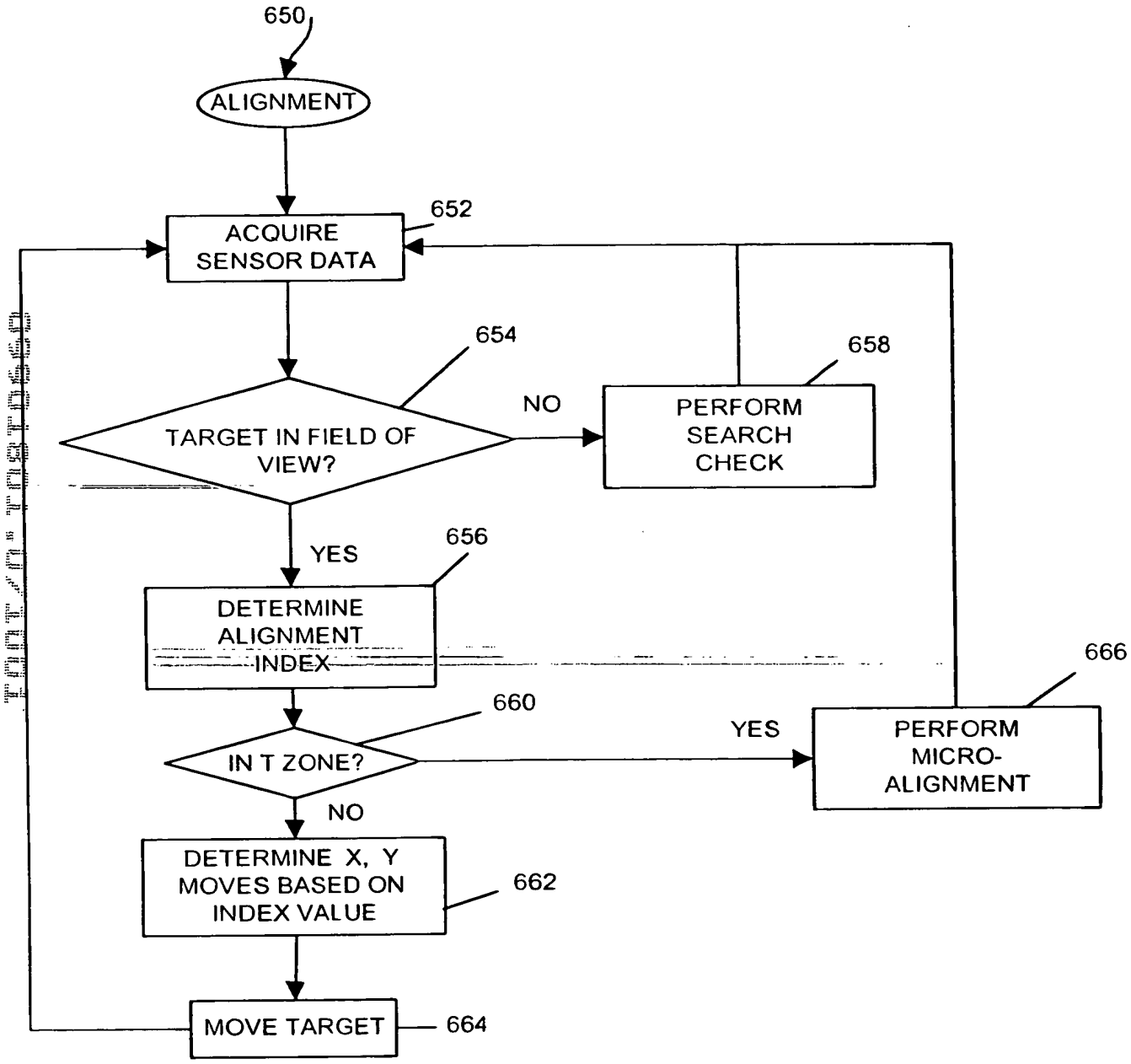
650
ALIGNMENT
652
ACQUIRE SENSOR DATA
654
TARGET IN FIELD OF VIEW?
NO
658
PERFORM SEARCH CHECK
YES
656
DETERMINE ALIGNMENT INDEX
666
660
IN T ZONE?
YES
PERFORM MICRO-ALIGNMENT
NO
DETERMINE X, Y MOVES BASED ON INDEX VALUE
662
MOVE TARGET
664

FIG. 21

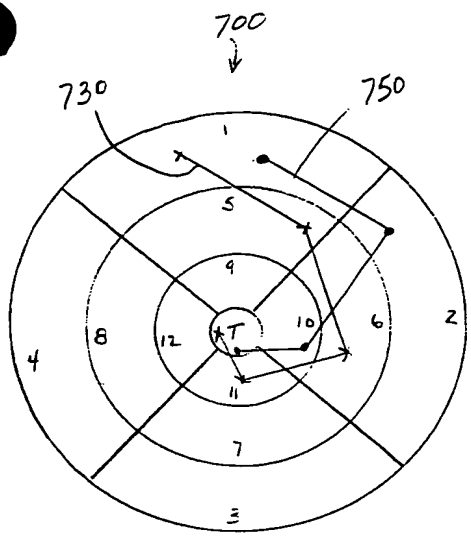
700
730
750
1
5
9
8
12
T
10
6
2
4
11
7
3

FIG. 22

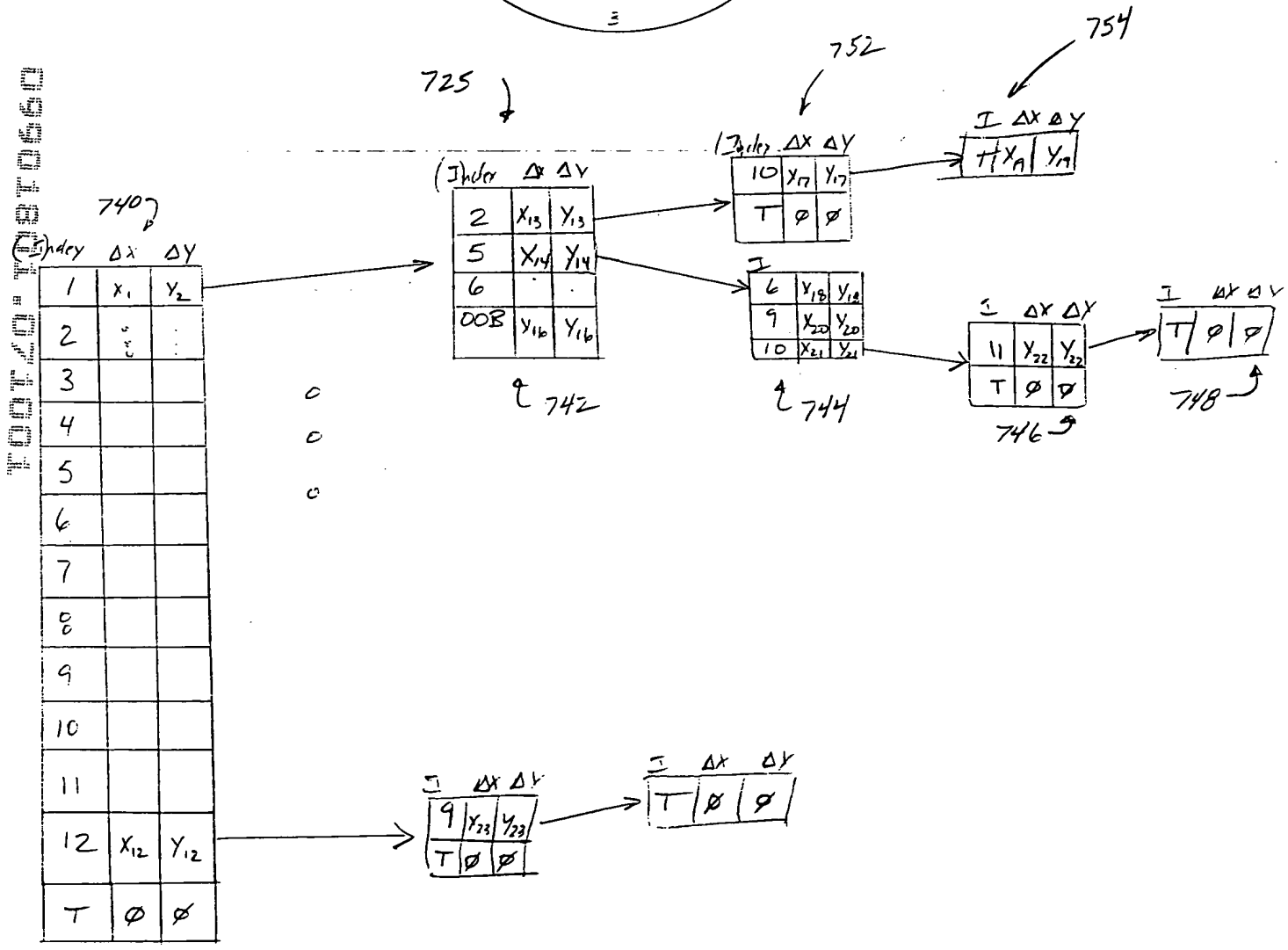
725
752
754
740
(Index ΔX ΔY
1 X1 Y2
2
3
4
5
6
7
8
9
10
11
12 X12 Y12
T ∅ ∅
2 X13 Y13
5 X14 Y14
6
008 Y16 Y16
10 Y17 Y17
T ∅ ∅
I ΔX ΔY
T X18 Y18
6 Y18 Y18
9 X20 Y20
10 X21 Y21
11 Y22 Y22
T ∅ ∅
T ∅ ∅
9 Y23 Y23
T ∅ ∅
T ∅ ∅
742
744
746
748

FIG. 23

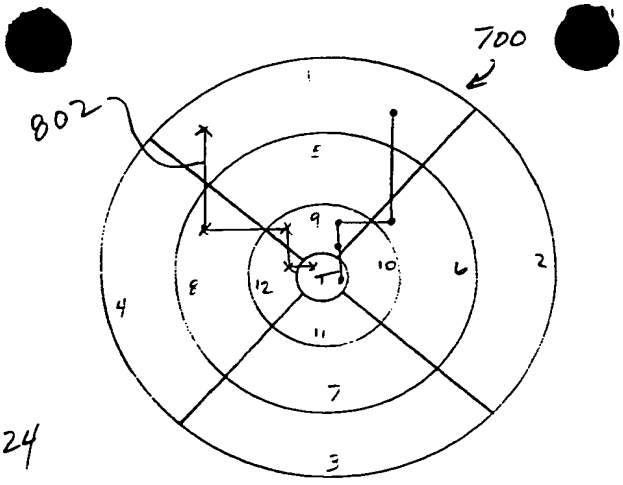


FIG. 24

800

| (I) | Δx | Δy |
|---|---|---|
| 1 | ∅ | $-Y_1$ |
| 2 | $-X_1$ | ∅ |
| 3 | ∅ | $Y_1$ |
| 4 | $X_1$ | ∅ |
| 5 | ∅ | $-K_1Y_1$ |
| 6 | $-K_1X_1$ | ∅ |
| 7 | ∅ | $K_1Y_1$ |
| 8 | $K_1X_1$ | ∅ |
| 9 | ∅ | $-K_2Y_1$ |
| 10 | $-K_2X_1$ | ∅ |
| 11 | ∅ | $K_2Y_1$ |
| 12 | $K_2X_1$ | ∅ |

FIG. 25

where: $\varnothing \leq K_2 \leq K_1 \leq 1$

& where: $X_1$ & $Y_1$ may be dynamically adjusted